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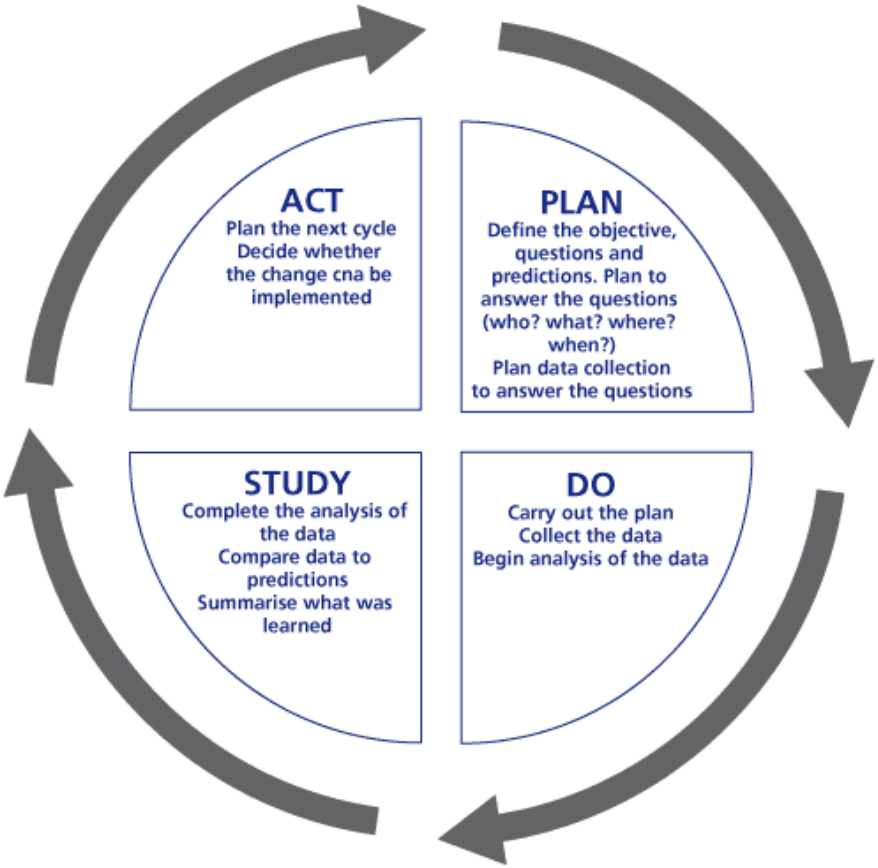
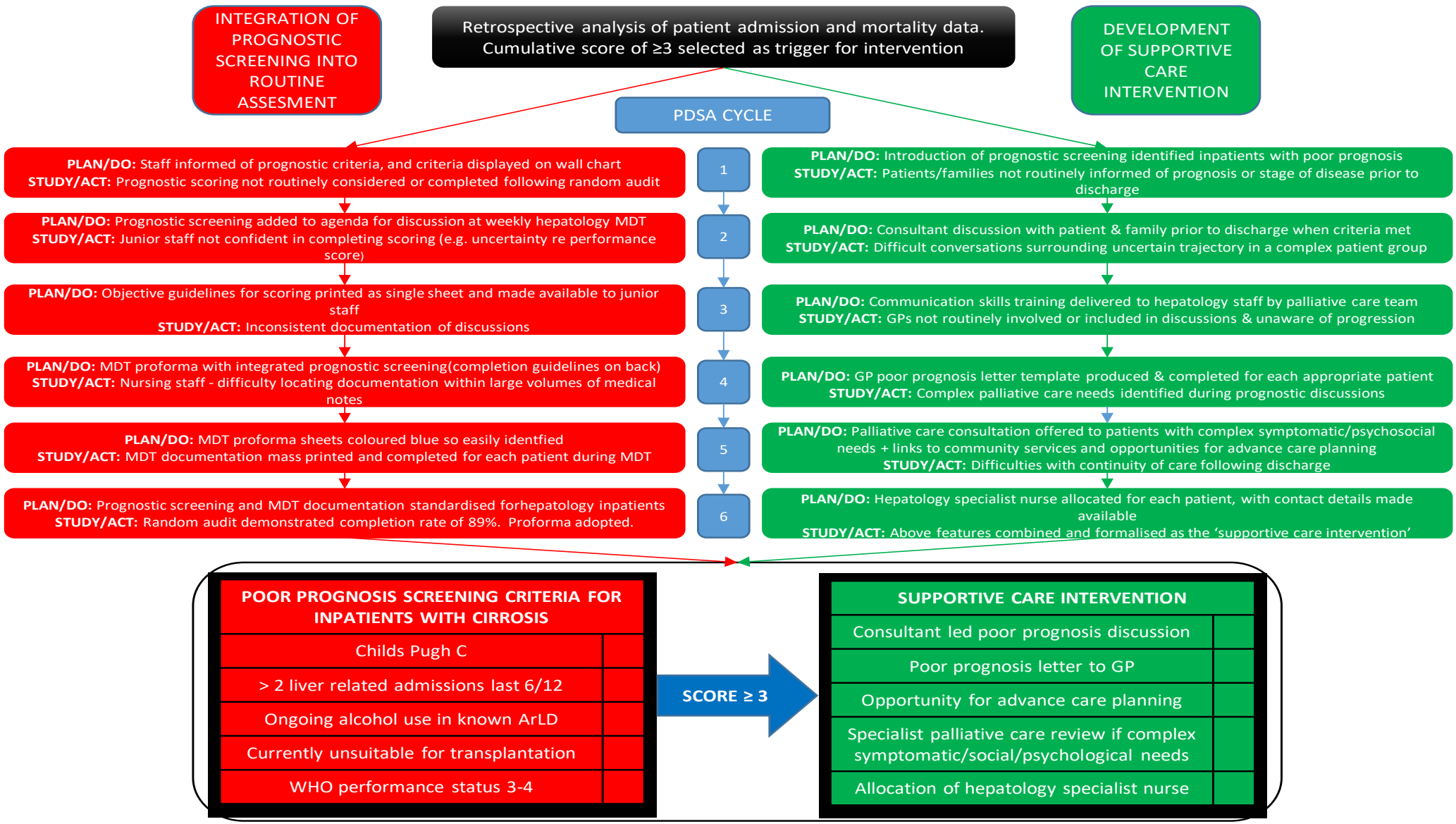
Integration of palliative and supportive care in the management of advanced liver disease – Development and evaluation of a prognostic screening tool and supportive care intervention. Hudson et al. 2016. Figures.

FIGURE 1 – Rapid Cycle Plan-Do-Study-Act methodology [16]



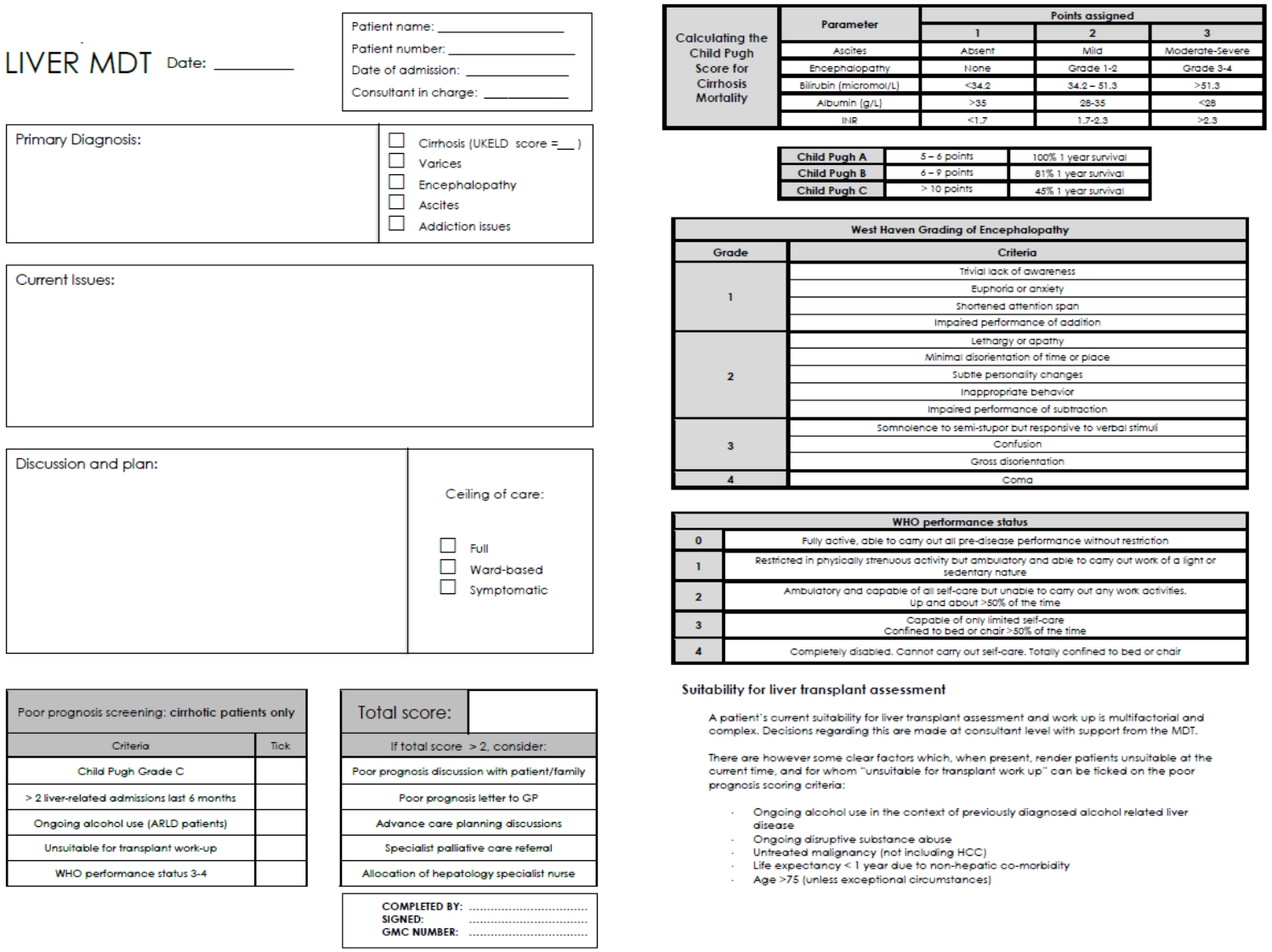
Integration of palliative and supportive care in the management of advanced liver disease – Development and evaluation of a prognostic screening tool and supportive care intervention. Hudson et al. 2016. Figures.

FIGURE 2 - Integration of prognostic screening tool and development of supportive care intervention using rapid-cycle PDSA methodology



Integration of palliative and supportive care in the management of advanced liver disease – Development and evaluation of a prognostic screening tool and supportive care intervention. Hudson et al. 2016. Figures.

FIGURE 3 - Integration of prognostic screening into weekly hepatology MDT proforma, completed weekly for each hepatology inpatient at University Hospitals Bristol Trust (front and reverse of sheet)



LIVER MDT Date: _____

Patient name: _____
Patient number: _____
Date of admission: _____
Consultant in charge: _____

Primary Diagnosis:

- ☐ Cirrhosis (UKELD score =___)
- ☐ Varices
- ☐ Encephalopathy
- ☐ Ascites
- ☐ Addiction issues

Current Issues:

Discussion and plan:

Ceiling of care:

- ☐ Full
- ☐ Ward-based
- ☐ Symptomatic

Poor prognosis screening: cirrhotic patients only	
Criteria	Tick
Child Pugh Grade C	
> 2 liver-related admissions last 6 months	
Ongoing alcohol use (ARLD patients)	
Unsuitable for transplant work-up	
WHO performance status 3-4	

Total score:	
If total score > 2, consider:	
Poor prognosis discussion with patient/family	
Poor prognosis letter to GP	
Advance care planning discussions	
Specialist palliative care referral	
Allocation of hepatology specialist nurse	

COMPLETED BY: .....
SIGNED: .....
GMC NUMBER: .....

Calculating the Child Pugh Score for Cirrhosis Mortality	Parameter	Points assigned		
		1	2	3
	Ascites	Absent	Mild	Moderate-Severe
	Encephalopathy	None	Grade 1-2	Grade 3-4
	Bilirubin (micromol/L)	<34.2	34.2 – 51.3	>51.3
	Albumin (g/L)	>35	28-35	<28
	INR	<1.7	1.7-2.3	>2.3

Child Pugh A	5 – 6 points	100% 1 year survival
Child Pugh B	6 – 9 points	81% 1 year survival
Child Pugh C	> 10 points	45% 1 year survival

West Haven Grading of Encephalopathy	
Grade	Criteria
1	Trivial lack of awareness
	Euphoria or anxiety
	Shortened attention span
	Impaired performance of addition
2	Lethargy or apathy
	Minimal disorientation of time or place
	Subtle personality changes
	Inappropriate behavior
	Impaired performance of subtraction
3	Somnolence to semi-stupor but responsive to verbal stimuli
	Confusion
	Gross disorientation
4	Coma

WHO performance status	
0	Fully active, able to carry out all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature
2	Ambulatory and capable of all self-care but unable to carry out any work activities. Up and about >50% of the time
3	Capable of only limited self-care Confined to bed or chair >50% of the time
4	Completely disabled. Cannot carry out self-care. Totally confined to bed or chair

Suitability for liver transplant assessment

A patient's current suitability for liver transplant assessment and work up is multifactorial and complex. Decisions regarding this are made at consultant level with support from the MDT.

There are however some clear factors which, when present, render patients unsuitable at the current time, and for whom "unsuitable for transplant work up" can be ticked on the poor prognosis scoring criteria:

- Ongoing alcohol use in the context of previously diagnosed alcohol related liver disease
- Ongoing disruptive substance abuse
- Untreated malignancy (not including HCC)
- Life expectancy < 1 year due to non-hepatic co-morbidity
- Age >75 (unless exceptional circumstances)